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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,416	01/15/2004	Soo Young Oh	0465-1798PUS1	3383
2292 7590 07/07/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER HECKERT, JASON MARK				
ART UNIT 1792		PAPER NUMBER		
NOTIFICATION DATE 07/07/2009		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

### Office Action Summary

**Application No.**

10/757,416

**Applicant(s)**

OH ET AL.

**Examiner**

JASON HECKERT

**Art Unit**

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14, 25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 25-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/30/09 has been entered.

### ***Response to Arguments***

2. Due to the applicant's amendments to the claims, the previous rejections are rendered moot.

3. However, the inclusion of a drain is not found to be patentably distinct over the prior art. Steam generators and other water holding apparatuses commonly include drains to remove the water from the device. See new references of Allen and Jung Jr.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 8-11, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent No 0816550 ('550) in view of Nakamura et al. in further view of Morton and further in view of Jung, Jr OR Allen et al. '550 teaches supplying steam to a horizontal drum washing machine by utilizing a heating element 9 that delivers water

vapor to an exhaust port (see figures). '550 also obviates the use of a controller (see the top of page 3 of the translated text). '550 does not teach that the steam generator includes a container. Nakamura et al. disclose a steam generator for a washing machine comprising a heater 6 located within a container. The generator exhausts steam into a drum. Nakamura et al. does not disclose that the container has a drain. Morton discloses a sealed humidifier (col. 3 lines 20 – 22) with a drainpipe 34 with exit 40. This pipe has an upper opening disposed in the container higher than the water level 28 and has a lower end 36 positioned outside the container. Water in the container that enters this exit, drains to a level below the upper inlet, specifically in the vicinity of 36, which is at the bottom. The drain operates when water is at a certain level, specifically a level higher than the exit 40. Morton's drainpipe operates like a siphon, with the water flowing from the higher opening out the lower opening and can therefore be considered a siphon pipe. It would have been obvious at the time of the invention, to modify the steam generator of '550 and include a container for the coil, as shown by Nakamura et al., and provide a sealed container with a drain, as taught by Morton, in order to prevent leaks yet allow for the removal of residual water.

6. It is well known that if it is desired to drain all fluid from a system, to locate a drain inlet at the bottom of a tank or receptacle, such as in a common sink. Gravity can be utilized to remove fluid without the addition of another device or power source. Thus, locating a drain inlet near the bottom is considered to be obvious to one skilled in the art for removing all of the contained fluid. Furthermore, Allen et al. discloses that a drain valve 132 can be used in a steam generation system for draining water from it. Jung Jr.

discloses that a drain line may be hooked up to a steam generation apparatus (col. 11 lines 65 – 70). Thus, including a drain near the bottom of the apparatus is believed to be obvious to one of ordinary skill in the art at the time of invention with the predictable result of removing the entire contents of the reservoir.

7. Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over '550 in view of Nakamura et al. in view of Morton in view of Allen OR Jung Jr. and further in view of Edwards OR Lund. Neither '550, Morton nor Nakamura et al. disclose a siphon cap covering a drainpipe. Edwards shows a sleeve or cap 11 covering a drainpipe 21. Ribs 22 maintain a distance between the pipe and the sleeve. The top of the sleeve covers the siphon pipe. In action, the device pulls a siphon that allows water to drain below the level of the siphon cap. Lund shows a similar drain system. A pipe 5 is covered by a capping plate 6. This allows drainage to a level until air enters the system again. Thus, siphon caps covering drain pipes were known at the time of invention for automatic level control. In regards to claim 5, Morton discloses said features of a drainpipe as stated above. It would have been obvious at the time of the invention, to modify '550 and Nakamura et al. with the features of Morton, as stated above, include a drain capable of removing water contents as disclosed by Allen or Jung Jr, and further include a siphon cap, as taught by Edwards and Lund, in order to provide automatic level control within the device.

8. Claims 12-13 rejected under 35 U.S.C. 103(a) as being unpatentable over '550 in view of Nakamura et al. in view of Morton in view of Allen OR Jung Jr. and further in view of Babuin et al. OR Kovich et al. Nakamura and Morton do not disclose a

recirculation system. Recirculation systems are well known in laundry machines.

Babuín discloses a recirculation pump 17 that circulates wash water back to the drum.

Kovich discloses a recirculation system where pump 38 pumps wash liquid from the tub through conduit 74 back into the wash basket via a nozzle 78. Thus, it would have been obvious at the time of the invention to modify Nakamura in view of Morton, as stated above, include a drain capable of removing water contents as disclosed by Allen or Jung Jr, and further include means for spraying exhausted water from the tub back into the laundry drum as shown by Babuín and Kovich.

9. Claims 25-26 rejected under 35 U.S.C. 103(a) as being unpatentable over '550 in view of Nakamura et al. in view of Morton in view of Allen OR Jung Jr and further in view of JP 2003-311084 ('084). '550 and Nakamura do not disclose a water valve attached to the steam generator. '084 teaches a valve 14 that provides water to a steam generator. Furthermore, the inclusion of a water valve to deliver water to washing machine components is considered to be an obvious modification due to its conventionality in the art. Thus, including a water supply valve is obvious to one of ordinary skill. Water level is a parameter that is often controlled in the art of steam generation and washing machines. Considering that '550 obviates controller use, one of ordinary skill would find it obvious to control the water valve to as to prevent over filling or under filling, as these are undesirable conditions. It would have been obvious at the time of invention to modify '550, Nakamura, and Morton, and include the valve of '084, in order to control fluid flow to the steam generator.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HECKERT whose telephone number is (571)272-2702. The examiner can normally be reached on Mon. to Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/  
Supervisory Patent Examiner, Art  
Unit 1792

JMH